

## PATENT COOPERATION TREATY

## PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY  
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>PE17682PC00</b>	<b>FOR FURTHER ACTION</b> See Form PCT/IPEA/416	
International application No. <b>PCT/SE2002/002332</b>	International filing date (day/month/year) <b>13-12-2002</b>	Priority date (day/month/year) <b>---</b>
International Patent Classification (IPC) or national classification and IPC <b>H04L 29/08, G06F 11/00, H04Q 7/38</b>		
Applicant <b>Telefonaktiebolaget LM Ericsson (publ) et al</b>		

- This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
- This REPORT consists of a total of 4 sheets, including this cover sheet.
- This report is also accompanied by ANNEXES, comprising:
  - ☒ (sent to the applicant and to the International Bureau) a total of 3 sheets, as follows:
    - ☒ sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).
    - ☐ sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.
  - ☐ (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) \_\_\_\_\_, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).

- This report contains indications relating to the following items:

- |                                     |              |   |
|-------------------------------------|--------------|---|
| <input checked="" type="checkbox"/> | Box No. I    | Basis of the report   |
| <input type="checkbox"/>            | Box No. II   | Priority  |
| <input type="checkbox"/>            | Box No. III  | Non-establishment of opinion with regard to novelty, inventive step and industrial applicability  |
| <input type="checkbox"/>            | Box No. IV   | Lack of unity of invention  |
| <input checked="" type="checkbox"/> | Box No. V    | Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement |
| <input type="checkbox"/>            | Box No. VI   | Certain documents cited   |
| <input type="checkbox"/>            | Box No. VII  | Certain defects in the international application  |
| <input type="checkbox"/>            | Box No. VIII | Certain observations on the international application   |

Date of submission of the demand <b>08-07-2004</b>	Date of completion of this report <b>24-02-2005</b>
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## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/SE2002/002332

## Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This report is based on a translation from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of:

- ☐ international search (under Rules 12.3 and 23.1(b))  
☐ publication of the international application (under Rule 12.4)  
☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the **elements** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

☐ the international application as originally filed/furnished

☒ the description:

pages 1 - 12 as originally filed/furnished

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☒ the claims:

pages \_\_\_\_\_ as originally filed/furnished

pages\* \_\_\_\_\_ as amended (together with any statement) under Article 19

pages\* 1 - 3 received by this Authority on 05-01-2005

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☒ the drawings:

pages 1 - 5 as originally filed/furnished

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_

☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

☐ the description, pages \_\_\_\_\_

☐ the claims, Nos. \_\_\_\_\_

☐ the drawings, sheets/figs \_\_\_\_\_

☐ the sequence listing (*specify*): \_\_\_\_\_

☐ any table(s) related to the sequence listing (*specify*): \_\_\_\_\_

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

☐ the description, pages \_\_\_\_\_

☐ the claims, Nos. \_\_\_\_\_

☐ the drawings, sheets/figs \_\_\_\_\_

☐ the sequence listing (*specify*): \_\_\_\_\_

☐ any table(s) related to the sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/SE2002/002332

**Box No. V** Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

Novelty (N)	Claims	<u>1-16</u>	YES
	Claims		NO
Inventive step (IS)	Claims	<u>1-16</u>	YES
	Claims		NO
Industrial applicability (IA)	Claims	<u>1-16</u>	YES
	Claims		NO

## 2. Citations and explanations (Rule 70.7)

The object of the invention is to achieve reliable and informative error messages for client-server communication through an intermediate device. The error status code sent from the server is transformed into an informative error description message including an extended error description text as well as a new status code.

Documents cited in the International Search Report:

D1: WO 0157666, A2  
D2: US 6353855, B1  
D3: US 2002126708, A1  
D4: WO 02096063, A2  
D5: US 6134680, A

Document D1 is considered to represent the closest prior art.

D1 relates to a method for generating error messages in a web based application, said method comprising the steps of searching said application for a predetermined error number; retrieving an error message corresponding to said error number; applying said error message to a style sheet in an error form; and displaying said error form on a requesting device (abstract; page 3, line 1- line 25; page 4, line 29- page 6, line 12; page 7, line 26- page 8, line 2; page 19, line 24- page 20, line 27; and claim 1).

The invention according to independent amended claims 1, 9 and 16 differs from D1 by transforming, at the intermediate device, the first status code into an error description message comprising an error description text and a second HTTP status

.../...

## Supplemental Box

In case the space in any of the preceding boxes is not sufficient.

Continuation of: BOX V

code. This step is performed in D1 by a processor in the Web Server and not by the intermediate server as in the claimed invention. Placing the processor and the error translation procedure in the intermediate device (Proxy server), which can be compared to the gateway function in D1, is an obvious step to a person skilled in the art. The object of the invention is to provide textual information to an end user describing the error.

However, the main objective of the present invention according to the amended claims is to overcome the problem of inadequate or misleading server-originating error information to the end user, which when using an external server or an MMSC, for example, may wrongly make the end user believe that the service is bad. Document D1, on the other hand, is concerned with providing a mechanism for formalized error handling and more user-friendly error messages.

In D2 there is described a procedure where the intermediate device, placed between a client sending requests to a server, is capable of translating and handling status descriptions based on the status indications and the determined characteristics of the users.

However, D2 does not suggest providing a new status code. The only status code presented is the first one, accompanying the original error message in the conventional way. D2 simply explains in a more user-friendly way what the first HTTP status code means.

The cited prior art documents are entirely focused on the content of the status description/error message to make it user friendly or capable of handling multilingual systems, and the control of the error information lies with the server device. D1 and D2 use one status code in a most conventional manner and contain no indication or suggestion pointing towards the solution claimed in accordance with the present invention.

Thus, the invention according to amended independent claims 1, 9 and 16 is novel and is considered to involve an inventive step.